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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,459	08/31/2000	David Hartwell	15311-2289	3596

24267 7590 05/10/2004

CESARI AND MCKENNA, LLP  
88 BLACK FALCON AVENUE  
BOSTON, MA 02210

EXAMINER

ODOM, CURTIS B

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 05/10/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/652,459

Applicant(s)

HARTWELL ET AL.

Examiner

Curtis B. Odom

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-5 and 9-12 is/are allowed.
- 6) ☒ Claim(s) 1 and 6-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Sager et al. (U.S. Patent No. 4, 979, 190).

Regarding claim 1, Sager et al. discloses a data receiving unit (Fig. 4, column 7, line 9-column 9, line 16) for receiving data transmissions in which data is transmitted in parallel over a plurality of conductors (Fig. 4, wherein the communication paths of the data and clock signal and conductors) and a forwarded clock signal (TF clock), synchronized with the data, is received over a further conductor (Fig. 3, RF clock), the unit comprising:

an input latch (Fig. 1, block 64) connected to receive the data on the data conductors, the latch being clocked by the forwarded clock signal (Fig. 4, RF clock);

means (Fig. 4, blocks 64 and 65, column 8, line 45-column 9, line 16) for maintaining a delayed replica (Fig. 4, element 50) of the forwarded clock signal in synchronism with the forwarded clock signal, the replica being a local clock signal (Fig. 4, element 50) for internal operations of the receiving unit, wherein the operation of latches 64 and 65 on the delayed

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replica of the forwarded clock signal (element 50) maintain synchronization between the replica signal and the forwarded clock signal;

a second latch (Fig. 4, block 67) connected to receive the contents of the input latch, the second latch being clocked by the local clock signal (Fig. 4, element 50) on transitions alternate to those on which said input latch is clocked, wherein since the forwarded clock signal and the local clock signal are synchronized, the second latch is clocked by the local clock signal (Fig. 4, element 50) on transitions alternate to those on which said input latch is clocked because the clock signal inputted to the input latch is inverted (Fig. 4, block 79).

Regarding claim 6, which inherits the limitations of claim 1, Sager et al. discloses the local clock signal is delayed relative to the forwarded clock signal by interval corresponding to the time required for the local clock signal to reach components clocked by the local clock signal in the receiving unit (column 7, lines 10-20).

Regarding claims 7 and 8, claimed method included features corresponding to the above rejection of claims 1 and 6 which is applicable hereto.

### ***Allowable Subject Matter***

3. Claims 2-5 and 9-12 are allowable over prior art because related references do not disclose third and fourth latches in a receiving unit which receive data from first and second latches clock by a forwarded clock signal, while the third and fourth latches are clocked by a local clock signal.

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***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 703-305-4097. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Curtis Odom  
April 26, 2004

  
STEPHEN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600